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FACSIMILE COVER SHEET

TO:	**Barney Chan**	**Alameda County EHS**	**510/337-9335**
	Name	Firm/Location	Fax Number
FROM:	Alan Klein	Sacramento, CA	112
	Name	Division/Dept.	Tel. Ext.
DATE:	July 15, 1999		
	Date	Time	
RE:	UAL – Work Plan		

COMMENTS:

Hello Barney:

As per our discussion:

1. **REVISED** site figure
2. Dissolved oxygen and pH will be collected in the field
3. Organic carbon will be analyzed by the Lloyd Kahn or Walkley Black Method
4. Table 1 – RBCA Modeling Input Parameters (Example)

We are tenatively schduled to install the wells on July 21, 1999.
With your approval of the well locations, I will contact Dale Klettke.

Regards, Alan

Page 1 of 3

Project No.:6908-050.300

Call (916) 362-7100 regarding problems with this transmission.

10324 Placer Lane, Suite 200
Sacramento, California 95827
FAX (916) 362-8100

9/24/99

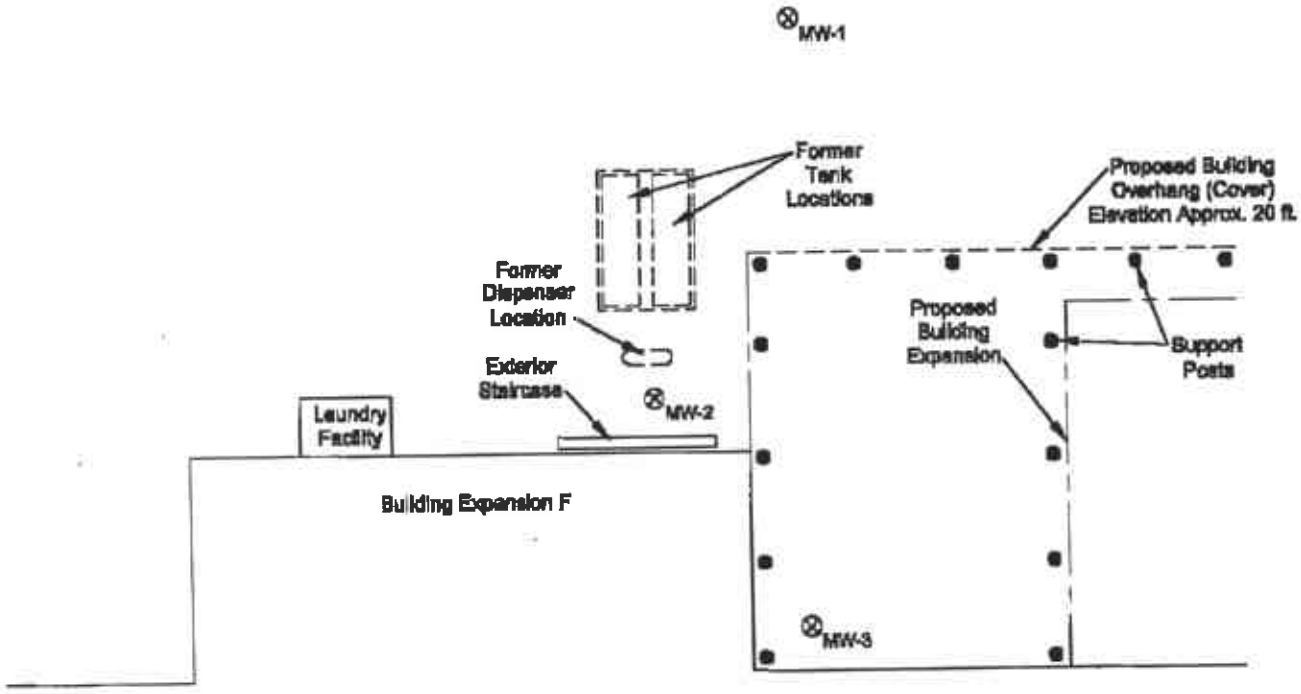
Spoke / A Klein re 3 MWs

No TPHg or BTEX

TPHd → MW-2 160 ug/L ND MW-3

MTBE MW-2 - 190 ppb
3 - 270 ppb

Will be sending repto UAL by Mon.
: expect report by next week?



LEGEND

MW-1 Proposed Well Location

NORTH

0 20 40

APPROX. SCALE IN FEET

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FIGURE 2

PROPOSED MONITORING WELL LOCATIONS

United Airlines

Oakland International Airport

Oakland, CA

DRAWN: J. Clerek	DATE: 7/15/99	PROJECT NO: 5900-080-200	REV.
FILE: Ens/5900080/Proposed40a.dwg			

TABLE 1
RBCA MODELING INPUT PARAMETERS
RME and MLE SCENARIOs
ABOVE-GROUND STORAGE TANK AREA

Input Parameter	Units	Reasonable Maximum Exposure Scenario	Most Likely Exposure Scenario	References
RISK Parameters				
Calculation of Cancer Risk	--	1×10^{-5}	1×10^{-5}	U.S. EPA, 1991
Systematic Toxicants/Hazard Index	--	1.0	1.0	U.S. EPA, 1991
Exposure Frequency (Residential)	days/yr	350	350	U.S. EPA, 1991
Exposure Frequency (Commercial)	days/yr	250	250	U.S. EPA, 1991
Receptors (Soil)	--	Commercial	Commercial	--
Exposure Duration	yrs	25	25	U.S. EPA, 1991
Hydrogeologic Parameters				
Vadose Zone Thickness	ft	23	23	Measured
Capillary Fringe Zone Thickness	ft	0.125	0.125	default
Depth to Groundwater	**ft**	**23**	**23**	**Measured**
Soil Density	g/cm^3	**1.52**	**1.52**	Measured
Soil pH	units	7	7	default
Fraction of Organic Carbon in Soil	**%**	**0.05**	**0.1**	**Measured**
Soil Porosity	**%**	**0.41**	**0.41**	**Measured**
Volumetric Water Content (Capillary Fringe)	%	34	34	default
Volumetric Air Content (Capillary Fringe)	%	4	4	default
Volumetric Water Content (Vadose Zone)	%	10	10	default
Volumetric Air Content (Vadose Zone)	%	25	25	default
Water Infiltration Rate	ft/yr	**0.1**	**0.01**	U.S. EPA, 1983
Air Parameters				
Distance to Offsite Receptors (property line)	ft	40	40	Measured
Air Mixing Zone	m	2	2	default
Ambient Air Velocity	m/s	2.85	2.85	default
Building Parameters				
Building Volume/Area Ratio	cm	300	300	default
Foundation Thickness	cm	15	15	default
Foundation Crack Fraction	%	1	0.1	default/modified
Volumetric Water Content of Crack	%	12	12	default
Volumetric Air Content of Crack	%	26	26	default
Plume Dimensions				
Top of Affected Soil	ft	3	3	Measured
Bottom of Affected Soil	ft	26	26	Measured
Surface Area of Affected Soil	ft^2	33,000	33,000	Measured
Length of Affected Soil Parallel to Wind	ft	240	240	Measured
Chemical Parameters				
Subsurface Soils (Estimate A on Table B-1)				
Benzene Concentration	mg/kg	0.35	0.2	Calculated Ave.
Toluene Concentration	mg/kg	0.8	0.44	Calculated Ave.
Ethylbenzene Concentration	mg/kg	18	6	Calculated Ave.
Xylenes Concentration	mg/kg	51	16	Calculated Ave.
Surface Soils				
Benzene Concentration	mg/kg	NA	NA	Not Modeled
Toluene Concentration	mg/kg	NA	NA	Not Modeled
Ethylbenzene Concentration	mg/kg	NA	NA	Not Modeled
Xylenes Concentration	mg/kg	NA	NA	Not Modeled

NOTES:

default - are those parameters contained in the RBCA Tool Kit Software (ver. 1)
Measured - Values from site data.
Calculated - Values derived from the 95% UCL (RME) and arithmetic mean (MLE) of COC concentrations (See TABLE B-1).
VALUES in BOLD show the input parameters that were varied between the RME and MLE modeling scenarios.
Surface Soils - Soils less than 3 feet bgs.
Subsurface Soils - Soils greater than 3 feet bgs.
NA - not included in analysis. Assumed that surficial soils will be removed during construction/development.
Thus will not pose a chronic risk to human health at the site.

U.S. EPA, 1991, "Risk Assessment Guidance for Superfund: Volume 1 - Human health Evaluation Manual.
Office of Emergency and Remedial Response, Washington D.C
U.S. EPA 1983, "Lining of Waste Disposal Facilities", SW-870. Office of Solid Waste and Emergency Response, Washington D.C.